

GENETIC ENGINEERING AND BIOTECHNOLOGY WITH FORENSIC SCIENCE CONCENTRATION Recommended Course Sequence 2020-2021 Catalog

Cedar Crest College's Four-Year Graduation (4YG) Guarantee is open to all academically qualified candidates enrolled full-time in a 4-year bachelor's degree program, with the exception of Nuclear Medicine Technology. It does not apply to dual degree, fifth-year, or graduate programs. Provided students comply with all of the conditions of the program, Cedar Crest College will guarantee graduation within four years. The guarantee extends to one major only. While many students add additional majors and finish within four years, Cedar Crest will not be able to provide four year guarantee in those cases.

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By signing below, ______ is enrolled in the 4YG program for the Genetic Engineering and Biotechnology major with a Forensic Science concentration under the 2020-2021 catalog requirements and agrees to

- assume ultimate responsibility for monitoring academic progress and the completion of all academic requirements;
- enroll at Cedar Crest for four continuous academic years;
- remain in good academic standing;
- complete an average of 30 new credits in each academic year. Courses must be selected in consultation with her academic advisor and 4YG coordinator and must apply to the recommended course sequence on page 2;
- maintain the GPA requirements of the Genetic Engineering and Biotechnology major and Liberal Arts Curriculum;
- meet regularly with her assigned academic advisor and 4YG coordinator following the schedule outlined below;
- resolve all outstanding holds that would prevent registration prior to the start of registration for each semester;
- register for classes each semester on the date appropriate for class standing as set forth by the Registrar;
- be responsive to communication from Cedar Crest College, including advisors and the 4YG coordinator;
 officially declare a Genetic Engineering and Biotechnology major in the first semester. If a change of major is requested
- after the first semester, the ability to sign a new 4YG contract is not guaranteed.
- complete the following and all other Genetic Engineering and Biotechnology major and FSC concentration requirements:
 - o Earn a minimum 2.0 cumulative GPA and 2.0 GPA in major coursework.
 - Earn a C- or better in all courses taken for major requirements.
 - o Earn a C or better in all courses taken for FSC concentration requirements
 - Earn a C- or better in all prerequisite courses before proceeding to subsequent courses.
 - Complete freshman core courses during the first year of enrollment; sophomore core courses during the second year of enrollment; BIO 350 in third fall semester; and BIO 356 in the fourth fall semester
 - o Complete at least 4 credits toward the elective requirement prior to the final semester.
 - o Complete the CHE 111, 112, 205, 206 sequence before the junior year.
 - o Begin the PHY 104, 105 sequence no later than fall of junior year.
 - o Complete MAT 141, 142 sequence before the junior year.

Date

o Abide by all other departmental policies and successfully meet all other graduation requirements.

The 4YG does not guarantee that courses will be offered at a particular time or on particular days, nor can it assure graduation in four years if accreditation agencies require immediate curricular changes. This agreement pertains only to the catalog specified; if major requirements change and the student elects to follow the newer requirements, this contract is void.

If a student meets all of the degree/program requirements but cannot graduate in four years because a course or courses are not available, the student will meet with her advisor as soon as the problem is discovered to discuss options for completion. These options could include a course substitution, an independent study, or permission to enroll in the course in a subsequent semester at no tuition cost to the student.

Required Meeting Schedule:

Advisor Signature

	Semester 1	Semester 2	Semester 3	Semester 4
Beginning of	Advisor	Advisor	Advisor	Advisor
Semester	4YG Coordinator	4YG Coordinator	4YG Coordinator	4YG Coordinator
Prior to registration	Advisor	Advisor	Advisor	Advisor
	4YG Coordinator	4YG Coordinator	4YG Coordinator	4YG Coordinator
	Semester 5	Semester 6	Semester 7	Semester 8
Beginning of	Advisor	Advisor	Advisor	Advisor
Semester	4YG Coordinator	4YG Coordinator	4YG Coordinator	4YG Coordinator
Prior to registration	Advisor	Advisor	Advisor	Advisor
	4YG Coordinator	4YG Coordinator	4YG Coordinator	4YG Coordinator
I agree to the stipula	ations set forth in this agree	ement.		
Student Signature		Date	ID Number	Entry Term

4YG Coordinator Signature

Date



GENETIC ENGINEERING AND BIOTECHNOLOGY WITH FORENSIC SCIENCE CONCENTRATION Recommended Course Sequence 2020-2021 Catalog

FALL 2020 SPRING 2021

Course	Cr	Title	\checkmark	Course	Cr	Title	$\overline{}$
BIO 123	4	Foundations in Biology		BIO 124	4	Principles of Cell and Molecular Biology	
CHE 111	4	Chemical Principles		CHE 112	4	Chemical Equilibrium and Analysis	
MAT 141	3	Calculus I		MAT 142	3	Calculus II	
FYS	3	First Year Seminar		WRI 100	3	College Writing	
CCC 101	0.5	College Life		CCC 102	0.5	Exploring Your Future	
				FSC 101	3	Survey of Forensic Science	

FALL 2021 SPRING 2022

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Course	Cr	Title	√	Course	Cr	Title	$\overline{}$
BIO 239	4	Animal Ecology, Development, and Evolution		BIO 231	4	Genetics	
ETL 235	3	Ethical Life		CHE 206	4	Organic Chemistry II	
CHE 205	4	Organic Chemistry I		CCC 20X	3	Sophomore Expedition	
	3	Humanities LAC course			3	Art LAC course	
FSC 241	4	Crime Scene Pattern Analysis					

FALL 2022 SPRING 2023

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Course	Cr	Title	✓	Course	Cr	Title	
BIO 350	2	Junior Colloquium		BIO	1.5	Genetic Engineering minilab*	
PHY 104	4	College Physics I		FSC 348	4	Forensic Molecular Biology	
	3	Social Science LAC course		PHY 105	4	College Physics II	
	3-4	Genetic Engineering elective**		FSC/CHE 302	4	Instrumental Analysis	
BIO	1.5	Genetic Engineering minilab*			3	Social Science LAC course	
BIO 248	3	Biostatistics					

FALL 2023 SPRING 2024

Course	Cr	Title	✓	Course	Cr	Title	✓
BIO 356	3	Science, Ethics, and Society		BIO 336	4	Molecular Genetics II	
BIO 335	4	Molecular Genetics I		BIO 345	3	Advanced Recombinant DNA	
	3	Art LAC course			3-4	Genetic Engineering elective **	
CHE 307	4	Biochemistry			3	Humanities LAC course	
FSC 347	4	Trace Evidence and Microscopy		FSC 349	3	Professional Issues in Forensic Science	

^{*} Choose two courses for a total of 3 credits from: BIO 341, 343, 344, or 349.

Liberal Arts Curriculum (LAC) and College-Wide Requirements

Natural Science (SCI): 7 cr. total, one must be a lab-based course	Writing (WRI1, WRI2): 2 courses, 6 cr. total
1. BIO 123 2. BIO 124	1. WRI 100 2. BIO 356
Arts (ART): 6 cr. total, one must be a 3 cr. course	Humanities (HUM): 2 courses, 6 cr. total
1. 2.	1. 2.
Mathematics & Logic (ML): 6 cr. total, one must be a MAT course	Social Science (SS): 2 courses, 6 cr. total
1. MAT 141 2. MAT 142	1. 2.
Ethics (ETH): 1 course, 3 cr.	Global Studies (GS): 1 course, 3 cr.
1. ETL 235	1. CCC 201
Technology:	Information Literacy:
1. BIO 231, 239, 350, and 356	1. BIO 231, 239, 350, and 356
Oral Presentation:	

Rev. 4/28/20

1. BIO 124, 239, 350, and 356

^{**}Choose 2 courses for a total of 7 credits from: BIO 227, 300, 317, 327, 332, 339, or 348; CHE 308. At least 1 must contain a lab.